UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,422	09/08/2003	Scott Anthony Arvin	G&C 30566.249-US-U1	9013

22462 7590 07/12/2005

GATES & COOPER LLP
HOWARD HUGHES CENTER
6701 CENTER DRIVE WEST, SUITE 1050
LOS ANGELES, CA 90045

EXAMINER	
LAY, MICHELLE K	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/657,422	ARVIN ET AL.	
	Examiner	Art Unit	
	Michelle K. Lay	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims **1 – 45** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims **1**, **3 – 5**, **7**, **10**, **11**, **16**, **18 – 20**, **22**, **25**, **26**, **31**, **33 – 35**, **37**, **40**, **41**, are rejected under 35 U.S.C. 102(b) as being anticipated by Wallace et al. (US Patent No. 5,861,889).

Wallace et al. discloses a system and method for manipulating, i.e. rotating an object within a graphics drawing program via handles.

In regards to claims **1**, **3 – 5**, **7**, **10**, **11**, **16**, **18 – 20**, **22**, **25**, **26**, **31**, **33 – 35**, **37**, **40**, **41** –

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) (claims **1**, **7**, **10.b.i.**, **16.b.i.**, **22**, **25(a)**, **31**, **37**, **40.a.**: displaying a graphic object). It should be realized that other

types of objects could be displayed on screen (22), either alone or in combination with other objects to yield a scene or the link [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles (claims **1**, **7**, **10.b.ii.**, **16.b.ii.**, **22**, **25.b.ii.**, **31**, **37**, **40.b.**: displaying a button object manipulator comprised of a grip) [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object (claims **1**, **7**, **10.e.**, **16.b.iv.**, **22**, **25.v.**, **31**, **37**, **40.e.**: directly modifying a property) [column 7, lines 31 – 34]. Referring to Fig. 13-3, if the mouse C has moved and is over the frame center knob handle (220) (as determined at step 306 of Fig. 3) (claims **4**, **19**, **34**: object manipulator displayed on graphic object used to manipulate the object), step 308 is executed. At step 308, the interior of the frame center knob handle (or any of the different handles for that matter) changes color (e.g., is highlighted) (claims **7**, **22**, **37**: color) and mouse pointer C changes to have a movement representation. If the left mouse button (35L) is clicked (claims **1**, **7**, **10.b.iii.**, **11**, **16.b.iii.**, **22**, **25(c)**, **26**, **31**, **37**, **40.c.**, **41**: activating button object manipulator), a drag frame center knob handle movement mode (or the associated mode with the chosen handle) is entered as shown by step 354 (claims **10.b.i.**, **25.b.ii.1.**, **40.b.i.**) [column 8, lines 34 – 47]. If the mouse pointed is over one of the object plane handles (214), step 362 is executed to initiate object planar drag movement mode (claims **10.b.ii.**, **25.b.ii.2.**, **40.b.ii.**) [column 9, lines 1 – 12]. In either case, the user then clicks the left mouse button (35L) to enter the

specific mode to alter the property of the graphical object (claims **10.d.**, **25.iv.**, **40.d.**). Thus, a discrete number of options are provided to the user to choose the desired property for manipulation of the graphical object, depending on the handle chosen (claims **5**, **20**, **35**). As an example, the center knob handle movement mode will be discussed. Referring to Fig. 4, at step 402, a determination is made whether the pointer C is being dragged (that is, whether either the mouse left button (35L) or the mouse right button (35R) is being held down). If the pointer C is being dragged, and is not over the anchor (25), then a "hit test" is performed to determine whether pointer C has the same coordinates as any one of the predetermined set of items and features of items displayed on the screen [column 10, lines 37 – 50]. If pointer C, while grasping frame center knob handle (220), is moved and is over a "hit" item, at step 414 a hit point in space of the displayed object being positioned is calculated. Then, at step 416, the entire object movement reference frame (26) is moved so that its frame center knob handle (220) is at the calculated (new) hit point (step 416) (claims **4**, **19**, **34**: modification of the property, claims **3**, **18**, **33**: graphically displayed property) [column 10, lines 51 – 56].

Screen (22) is generated by a display device such as a computer graphics monitor (30). The central processing unit (CPU) (32) communicates with various other constituent members of system (20) over a master bus (33) (claims **16.a.**, **22**, **25.a.**: computer). A user communicates with system (20) through the instrumentality of a mouse (34) and, when desired, a keyboard (36) [column 5, lines 28 – 35]. System (20) also has various forms of electronic memory (claims **16.a.**, **22**, **25.a.**: computer having

memory), such as on-board random access memory (RAM) (42) and a disk (44) [column 5, lines 41 – 42]. In the course of operation, CPU (32) executes instructions, i.e., computer programs or computer code (claim **31**, **37**, **40**: executable instructions) [column 5, lines 55 – 56]. Fig. 2 graphically depicts a main graphics system (MGS) (90) that is executed by CPU (32). Fig. 13-1 depicts the appearance of monitor screen (22) resulting at a certain stage if execution of MGS (90) (claims **16**, **22**, **25.b.**: application executing) [column 5, lines 56 – 60].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **2**, **17**, **32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Choi (US Patent No. US 6,639,606 B1).

Wallace et al. teaches the limitations of claims **2**, **17**, **32** except for clicking a button on the pointing device to activate the button object manipulator without dragging the button object manipulator. However, Choi discloses display screens comprised of icons, that when pressing the icon, will perform a task related to the display of the window.

In regards to claims **2**, **17**, **32**, the rationale from claims **1**, **16**, **31** respectfully, are incorporated herein, and only the differences will be discussed. As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object [column 7, lines 31 – 34]. Whenever the current position of the pointer is over a selected frame feature, both the frame feature itself and the pointer can change appearance on display screen (22). Thereafter, if mouse left button (35L) is clicked while the feature and pointer appearances are so changed, execution enters one of its object movement modes [column 8, lines 12 – 17].

As illustrated in Fig. 11 of Choi, Choi teaches a personal computer comprising a central processing unit (CPU) (52) that controls an arithmetic and logic unit (ALU) (51) to perform logic or an arithmetic calculation. The CPU (52) controls an input unit (85), such as a keyboard or a mouse, to receive data, and an output (54) to output the data. The CPU (52) stores the data in a memory (53) or the data is outputted from the memory (53) [column 3, lines 48 – 56]. Referring to Fig. 3, Numeral 1 indicates a left split icon, 2 indicates a right split icon, 3 indicates a minimize icon, 4 indicates a restore

icon, and 5 indicates a left/right split screen setting icon [column 4, lines 20 – 25]. As an example, referring to Fig. 1, a left split method of a computer system display screen comprises sensing whether a left split icon (1) is pressed, setting right X coordinates of the screen to a half of the width of the entire screen after calculating the horizontal dimension X and vertical dimension Y of the entire screen, and setting the dimension of the screen to the new values [column 4, lines 30 – 40]. These icons would be button object manipulators as displayed on the windows as shown in Fig. 3. Furthermore, when pressing these icons, an automatic visual manipulation of the graphical window is altered without dragging.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the icons of Choi with the handles of Wallace et al. because by automatically manipulating the graphical object, the user will save time by not having to manipulate the object manually by dragging.

3. Claims **6**, **8**, **9**, **21**, **23**, **24**, **36**, **38**, **39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Felser et al. (US Patent No. 6,025,849).

Wallace et al. discloses the limitations of claims **6**, **8**, **9**, **21**, **23**, **24**, **36**, **38**, **39** except teaching displaying the object manipulators in viewable orientation and meaningful locations. However, Felser et al. discloses a framework that enables the creation and maintenance of relationships between properties of objects.

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) (claims **8**, **23**, **38**: displaying a graphic object). It should be realized that other types of objects could be displayed on screen (22), either alone or in combination with other objects to yield a scene or the link [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles (claims **8**, **23**, **38**: displaying a button object manipulator comprised of a grip) [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object (claims **8**, **23**, **38**: directly modifying a property) [column 7, lines 31 – 34]. Referring to Fig. 13-3, if the mouse C has moved and is over the frame center knob handle (220) (as determined at step 306 of Fig. 3), step 308 is executed. At step 308, the interior of the frame center knob handle (or any of the different handles for that matter) changes color (e.g., is highlighted) and mouse pointer C changes to have a movement representation. If the left mouse button (35L) is clicked (claims **8**, **23**, **38**: activating button object manipulator), a drag frame center knob handle movement mode (or the associated mode with the chosen handle) is entered as shown by step 354 [column 8, lines 34 – 47]. Screen (22) is generated by a display device such as a computer graphics monitor (30). The central processing unit (CPU) (32) communicates with various other constituent members of system (20) over a master bus (33) (claim **23**:

computer). A user communicates with system (20) through the instrumentality of a mouse (34) and, when desired, a keyboard (36) [column 5, lines 28 – 35]. System (20) also has various forms of electronic memory (claim **23**: computer having memory), such as on-board random access memory (RAM) (42) and a disk (44) [column 5, lines 41 – 42]. In the course of operation, CPU (32) executes instructions, i.e., computer programs or computer code (claim **38**: executable instructions) [column 5, lines 55 – 56]. Fig. 2 graphically depicts a main graphics system (MGS) (90) that is executed by CPU (32). Fig. 13-1 depicts the appearance of monitor screen (22) resulting at a certain stage if execution of MGS (90) (claims **23**: application executing) [column 5, lines 56 – 60].

Felser et al. discloses a software system that enables the creation and maintenance of relationship between properties of objects, wherein the object can be authored by a user. It is typically implemented using a personal computer (100) as shown in Fig. 1 [column 3, line 33]. The system of Felser et al. is usually implemented in one or more application programs (118) that operate under control of the operating system (116). The application program (118) is usually a CAD program or other graphics program [column 3, lines 47 – 54]. Fig. 2 is a block diagram that illustrates the components of an object (200). It is comprised of a number of different elements, such as zero or more handles (210) and a drag handler (214) [column 4, lines 22 – 41]. A shape object (200) uses a draw objects collection (204) to define the geometry for rendering the shape object's (200) appearance [column 6, lines 8 – 11]. The handles (210) are points located within the shape object (200) that are exposed to the user

interface when the shape object (200) is selected. Handles (210) allow direct manipulation of geometry within the shape object (200), as well as any other shape object (200) parameter of collection element that can be referenced via expressions [column 6, lines 33 – 37]. The handle (212) position is thus independent of mouse position, and the shape author relates the handle position (212) to the mouse pointing device (112) position by using an expression to achieve any desired handle (212) motion [column 6, lines 54 – 59], such as moving to a new location on the attached object when the handle (210) is being obstructed by another object (claims **6**, **21**, **36**) or reorienting the handles (210) if they are clearly viewable (claims **8**, **23**, **38**). Furthermore, pertaining to claims **9**, **24**, **39**, it would have been obvious to one of ordinary skill in the art to permit multiple iterations of reorienting the handles (210) when the handles (210) are not clearly viewable so that the user will constantly be able to access the handles (210) regardless of the altered orientation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method and computer instructions of the movement of the handle (210) of Felser et al. within the computer programs or computer code executed by the CPU of Wallace et al. because if the graphical object displayed on the display of Wallace is rotated and/or translated so that the handles are hidden or skewed, the user would need a way to be able to be access these button object manipulators to manipulate the graphical object. Thus, the movement of the handles of Felser et al. would provide a means to move the manipulators to a visible

location (claims **6**, **21**, **36**), or reorienting them (claim **8**, **23**, **38**) so that the user can employ them.

4. Claims **12**, **27**, **42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Wang (US Patent No. 4,701,752).

Wallace et al. teaches the limitations of claims **12**, **27**, **42** except teaching displaying a graphic image to graphically indicate the function state of the object manipulator. However, Wang discloses a computer graphics display that utilizes multiple windows to exhibit the action being taken.

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object [column 7, lines 31 – 34].

Wang discloses a procedure for generating a mirror image of a graphic object on an interactive computer graphics display. Referring to Fig. 3, a second window (26) is shown which contains the mirror object (10) with its two handles (12), (14) [column 3,

lines 63 – 65]. By grabbing the mirror direction handle (12) using the pointing cursor (24) and while the select key is pressed, the use can rotate the mirror in any direction about an axis perpendicular to the direction handle (12). The effect of a clockwise rotation of the handle is shown in Fig. 4 [column 4, lines 1 – 10]. Thus, providing a preview display of the function of the object manipulator (claims **12**, **27**, **42**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the preview function of Wang with the main graphics system (MGS) that is executed by the CPU of Wallace et al. because it would provide the user a means to view the function of the handles of Wallace so that the user would know what the handle's function is instead of needing to look up the definition within a legend.

5. Claims **13**, **28**, **43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Argiolas (US Patent No. 5,956,032).

Wallace et al. teaches the limitation of claims **13**, **28**, **43** except disclosing an error condition. However Argiolas teaches a method for resizing a window that visually indicates to the user that an illegal resizing action is attempted.

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) (claims **13**, **28.b.i.**, **43**: displaying a graphic object). It should be realized that other types of objects could be

displayed on screen (22), either alone or in combination with other objects to yield a scene or the link [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles (claims **13**, **28.b.ii.**, **43**: displaying a button object manipulator comprised of a grip) [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object [column 7, lines 31 – 34]. Referring to Fig. 13-3, if the mouse C has moved and is over the frame center knob handle (220) (as determined at step 306 of Fig. 3), step 308 is executed. At step 308, the interior of the frame center knob handle (or any of the different handles for that matter) changes color (e.g., is highlighted) and mouse pointer C changes to have a movement representation. If the left mouse button (35L) is clicked (claims **13**, **28.b.iii.**, **43**: activating button object manipulator), a drag frame center knob handle movement mode (or the associated mode with the chosen handle) is entered as shown by step 354 [column 8, lines 34 – 47]. If the mouse pointed is over one of the object plane handles (214), step 362 is executed to initiate object planar drag movement mode (claims [column 9, lines 1 – 12]. In either case, the user then clicks the left mouse button (35L) to enter the specific mode to alter the property of the graphical object. Screen (22) is generated by a display device such as a computer graphics monitor (30). The central processing unit (CPU) (32) communicates with various other constituent members of system (20) over a master bus (33) (claims **28.a.**: computer). A user communicates with system (20)

through the instrumentality of a mouse (34) and, when desired, a keyboard (36) [column 5, lines 28 – 35]. System (20) also has various forms of electronic memory (claims **28.a.**: computer having memory), such as on-board random access memory (RAM) (42) and a disk (44) [column 5, lines 41 – 42]. In the course of operation, CPU (32) executes instructions, i.e., computer programs or computer code (claim **43**: executable instructions) [column 5, lines 55 – 56]. Fig. 2 graphically depicts a main graphics system (MGS) (90) that is executed by CPU (32). Fig. 13-1 depicts the appearance of monitor screen (22) resulting at a certain stage if execution of MGS (90) (claims **28.b.**: application executing) [column 5, lines 56 – 60].

Argiolas teaches a computer (100) as shown in Fig. 1, comprised of a display unit (110) and a keyboard (120), as well as a processor system unit (130) which may serve to mount a fixed disk drive and a diskette drive in addition to the main processor and memory [column 3, lines 11 – 17]. The computer (100) preferably includes a graphic pointing device, such as a mouse (140), which may be utilized to manipulate the position of a pointer within a visual display screen (110) [column 3, lines 21 – 24]. The user can change the size of a window. This action is performed by acting on the cursor, which is controlled by a pointing device such as a mouse. The cursor is placed on a point of the window border (either a corner or a side) and the border is "hooked" to the cursor, so that by moving the cursor through the pointing device, the border is "dragged" and the window changes its size accordingly [column 3, 62 – 64]. A visual signal is provided to the user that indicates the window has reached a maximum or minimum size limit on the direction the resizing is attempted (claims **13**, **28.b.iv.**, **43**: displaying a

bitmap image at a cursor position, error condition) [column 3, lines 65 – 68]. Fig. 3 shows examples of such visual feedback. The hooking action of the cursor to a point on the window border would be associated with a grip on the window border.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the visual error condition of Argiolas with the cursor of Wallace et al. because the visual feedbacks allow the user to immediately and intuitively perceive that an impossible action is attempted and to avoid useless and time consuming further attempts [Argiolas: column 4, lines 34 – 37].

6. Claims **14**, **29**, **44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Young (US Patent No. 5,299,307).

Wallace et al. teaches the limitations of claims **14**, **29**, **44** except disclosing particular glyph shapes indicating an alignment of the graphic object with respect to one or more addition objects. However, Young discloses a computer aided design and drawing system that includes a graphic guide used for associating edges and points of one graphic image with one or more other images.

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) (claims **14**, **29.b.i.**, **44**: displaying a graphic object). It should be realized that other types of objects could be displayed on screen (22), either alone or in combination with other objects to yield a

scene or the link [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serve to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles (claims **14**, **29.b.ii.**, **44**: displaying a button object manipulator comprised of a grip) [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere S relative to the displayed object [column 7, lines 31 – 34]. Referring to Fig. 13-3, if the mouse C has moved and is over the frame center knob handle (220) (as determined at step 306 of Fig. 3), step 308 is executed. At step 308, the interior of the frame center knob handle (or any of the different handles for that matter) changes color (e.g., is highlighted) and mouse pointer C changes to have a movement representation. If the left mouse button (35L) is clicked, a drag frame center knob handle movement mode (or the associated mode with the chosen handle) is entered as shown by step 354 [column 8, lines 34 – 47]. If the mouse pointed is over one of the object plane handles (214), step 362 is executed to initiate object planar drag movement mode (claims [column 9, lines 1 – 12]. In either case, the user then clicks the left mouse button (35L) to enter the specific mode to alter the property of the graphical object. Screen (22) is generated by a display device such as a computer graphics monitor (30). The central processing unit (CPU) (32) communicates with various other constituent members of system (20) over a master bus (33) (claims **29.a.**: computer). A user communicates with system (20) through the instrumentality of a mouse (34) and, when desired, a keyboard (36) [column 5, lines 28 – 35]. System (20) also has various forms of electronic memory (claims

29.a.: computer having memory), such as on-board random access memory (RAM) (42) and a disk (44) [column 5, lines 41 – 42]. In the course of operation, CPU (32) executes instructions, i.e., computer programs or computer code (claim **44**: executable instructions) [column 5, lines 55 – 56]. Fig. 2 graphically depicts a main graphics system (MGS) (90) that is executed by CPU (32). Fig. 13-1 depicts the appearance of monitor screen (22) resulting at a certain stage if execution of MGS (90) (claims **29.b.**: application executing) [column 5, lines 56 – 60].

Young teaches a computer-aided design and drawing system used for generating and manipulating graphic images on a computer display screen [column 3, lines 27 – 29]. Referring to Fig. 2, the geometric shapes (201), (202), and (203) are independent graphical images drawn on the display screen [column 4, lines 60 – 64]. These graphical images can have guide points associated with the image. For example, the guide points associated with a rectangular image comprise the four corners and the center of the rectangle [column 5, lines 23 – 29]. These guide points would be then handles of Wallace et al. As cursor (200) is moved from its position in Fig. 2 to its position in Fig. 3, cursor (200) enters a proximity region associated with point (211). When this occurs, guideline (210) is displayed intersecting point (211) and extending to the edges of the window (251) in which point (211) is displayed. In addition, a small circle is displayed around point (211) indicating that point (211) is the guide point associated with the guideline (210) [column 6, lines 27 – 37].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include these guidelines of Young while the graphical objects

of Wallace et al. are being manipulated because this would provide control for drawing and manipulating images [Young: column 1, lines 15 – 20] especially when dimensions are not provided [Young: column 1, lines 34 – 35].

7. Claims **15**, **30**, **45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (US Patent No. 5,861,889) in view of Frank et al. (US Patent No. 5,651,107).

Wallace et al. teaches the limitations of claims **15**, **30**, **45** except disclosing displaying the object manipulator in a translucent color. However, Frank et al. teaches underlying windows to display data visible to the user through window that are overlaid above an underlying window.

As shown in Fig. 1, Wallace et al. illustrates a computer graphics system (20) with a display screen (22) showing a cylindrical drum (24) as well as a specialized graphics tool which gives the impression of a sphere about drum (24) (claims **15**, **30.b.i.**, **45**: displaying a graphic object). It should be realized that other types of objects could be displayed on screen (22), either alone or in combination with other objects to yield a scene or the link [column 4, lines 58 – 68]. Object movement reference frame (26) is depicted as the sphere and its various handles that serves to displace (e.g., move or rotate) the displayed object on the screen [column 5, lines 13 – 19]. The "handles" of the object movement reference frame (26) include a plurality of object image handles (claims **15**, **30.b.i.**, **45**: displaying a button object manipulator comprised of a grip) [column 7, lines 5 – 6], including frame handles which facilitate the movement of sphere

S relative to the displayed object [column 7, lines 31 – 34]. Referring to Fig. 13-3, if the mouse C has moved and is over the frame center knob handle (220) (as determined at step 306 of Fig. 3), step 308 is executed. At step 308, the interior of the frame center knob handle (or any of the different handles for that matter) changes color (e.g., is highlighted) (claims **15**, **30.b.ii.**, **45**: color) and mouse pointer C changes to have a movement representation. If the left mouse button (35L) is clicked, a drag frame center knob handle movement mode (or the associated mode with the chosen handle) is entered as shown by step 354 [column 8, lines 34 – 47]. If the mouse pointed is over one of the object plane handles (214), step 362 is executed to initiate object planar drag movement mode [column 9, lines 1 – 12]. In either case, the user then clicks the left mouse button (35L) to enter the specific mode to alter the property of the graphical object. Screen (22) is generated by a display device such as a computer graphics monitor (30). The central processing unit (CPU) (32) communicates with various other constituent members of system (20) over a master bus (33) (claims **30.a.**: computer). A user communicates with system (20) through the instrumentality of a mouse (34) and, when desired, a keyboard (36) [column 5, lines 28 – 35]. System (20) also has various forms of electronic memory (claims **30.a.**: computer having memory), such as on-board random access memory (RAM) (42) and a disk (44) [column 5, lines 41 – 42]. In the course of operation, CPU (32) executes instructions, i.e., computer programs or computer code (claim **45**: executable instructions) [column 5, lines 55 – 56]. Fig. 2 graphically depicts a main graphics system (MGS) (90) that is executed by CPU (32).

Fig. 13-1 depicts the appearance of monitor screen (22) resulting at a certain stage if execution of MGS (90) (claims **30.b.**: application executing) [column 5, lines 56 – 60].

Frank et al. discloses a CPU coupled to a display for displaying graphic and other data in multiple overlapping windows. Referring to Fig. 10, windows 255 and 260 are displayed in display 250. Window selection buttons 280, 281, 282 and 283 are shown on the four corners of window 255. Similarly, buttons 285, 286, 287, and 288 are shown on window 260. These buttons may be thought of as object manipulators. As shown, the windows are transparent, allowing a user to see the graphic object behind a button [column 9, lines 60 – 65; column 10, lines 1 – 25].

Therefore, it would have been obvious to one of ordinary skill in the art to make also include a translucent color in the coloring of the handles of Wallace et al. as performed by Frank et al. because this would prevent the user from having an obstructed view of the entire graphical image.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle K. Lay whose telephone number is (571) 272-7661. The examiner can normally be reached on Monday - Friday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michelle K. Lay
Examiner
Art Unit 2672

06.27.2005 mkl

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

7/6/05